Comment

Is India heading towards a dramatic shift in care away from the hospital?

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Introduction

India is a developing country with a significant landmass and a diverse population. This diversity and complexity entail challenges in the delivery and outreach of health services. Along with a chronically underfunded public health system and an unaccountable private healthcare system (Kamath et al, 2020), there has been a relative decline in national healthcare spending. In 2000, 4.2% of India's GDP was spent on healthcare, a figure which fell to as 3.9% by 2015. This is in stark contrast to other countries. For example, $63 per capita is spent on healthcare in India compared to $426 in China (McKinsey, 2019).

The health system in India is characterised by the combination of public and private health providers. Public healthcare is provided by central and state governments. These services are low cost, overcrowded and largely used by the poorer sections of the society, who also bear the higher disease burden. India's primary healthcare system encompasses a network of primary health centres (PHCs) and community health centres (CHCs) and was designed almost 70 years ago (Mohan et al, 2019). Private healthcare therefore forms a significant portion of service delivery and the combination of the two have created a fragmented network which adversely impacts service delivery and limits the capacity of healthcare services. In addition, insurance is not universal, therefore out of pocket payments are the norm and prices vary depending on the care provider, location and specialty required.

COVID-19 has changed the face of health service delivery, with hospital visits becoming risky and expensive. Lockdowns and restrictions have inevitably led to falling incomes for the population, which will inevitably push more people below the poverty line. COVID-19 has also led to a decrease in accessibility to health services, as many private service providers have pulled themselves out of service (Kamath et al, 2020). Though this is temporary, the impact will be long term.

A significant change has been the exponential adoption of telemedicine and home healthcare. These options are now considered a safer and more convenient alternative that can allow patients to be evaluated and treated without risk of infection. This article discusses these developments and their implications for the long-term future of healthcare provision in India.

Telemedicine

Telemedicine can be synchronous, asynchronous or remote monitoring, providing doctors and patients with varied options for service delivery (Wilson and Maeder, 2015). Though aspects of telemedicine were present before 2020, COVID-19 proved to be a gamechanger, as previously there was no official legislation regarding practice of medicine via video, phone or internet platforms. In March 2020, the Indian government passed guidelines on telemedicine which have now paved the way for exponential growth in this method of service delivery (Medical Council of India, 2020). For example, an Indian private healthcare platform called Practo saw a 500% growth in tele-consultations during lockdown (Kuruvilla, 2020).

Alongside the introduction of tele-consultations in all specialties, Practo has also launched home-based COVID-19 testing in major cities for a cost of £48 per test. Bookings are taken online, swabs are collected from the patient's home and transported in a cold chain, then results are made available within 48 hours (Practo, 2020). This has had a positive impact on containing the virus, as individuals are not required to travel to a hospital or a test centre until absolutely necessary. However, the high out of pocket price point makes it accessible only to the upper middle class or higher section of the society.

Apart from being a safe option during the pandemic, audio, video and internet platform-based consultations can give millions of patients' access to specialist advice in a geographically fragmented health system. A study by McKinsey (2019) suggested that telemedicine can save India $4–5 billion, as well as enabling people living in rural areas to reduce their dependency on unqualified local practitioners, while saving time and money spent on travel to cities for specialist advice.

Key competitors in the current market are Indian companies- Practo and Apollo Health. Practo offers complete packages of consultation, filing of insurance claims, electronic health records and linkages with nearby hospitals. Meanwhile, Apollo Health focuses on setting up 'teleclinics' where local healthcare workers can perform vital checks and specialists can provide patient consultations over video.

Home healthcare

Home health provisioning systems (HHPS) represent a system wherein clinicians provide routine and emergency care at the patient's home (Agarwal et al, 2016a). Considered a more luxurious service, it can include specialist house visits, 24-hour physician access, same day in-person appointments and more. Home healthcare can provide diagnostics, consultations, medical supplies, hiring of medical devices and mobility devices (Ganesh, 2018).

Home healthcare in India is offered by private organisations, which are usually targeted at specific populations. For home nursing, terminal illness care is the most common type of service provided. However, over the last 5 years, the industry has expanded to all aspects of diagnostics and medical services. Some of the key home healthcare organizations in the market for India are Indian companies- Portea, Nightingale and Tribeca, and USA based Bayada. Portea and Nightingale offer a wide range of services targeting all age groups- diabetes care, elderly care, physiotherapy, critical care (intensive care units at home), equipment hire, laboratory tests, nursing, newborn baby and mother care, doctor consultations, nutrition and counselling. Bayada and Tribeca specializes elderly care with Bayada offering only nursing services while Tribeca offers nursing, physiotherapy, home security, equipment hire and assisted living facilities.

As well as being convenient, home healthcare is cost-effective for both patients and clinicians, operating with 15% to 30% lower costs for real estate and infrastructure. Home healthcare also has the potential to replace 65% of unnecessary hospital visits in India and reduce hospital costs by 20% (Ganesh, 2018). Furthermore, taking care into patients' homes also allows healthcare organisations to keep hospital facilities and doctors free to provide the most urgent healthcare services, such as cancer care, obstetrics, accidents and lifesaving surgeries. There can be an argument that home care during a pandemic increases risk of infection. However, it is arguably safer for professionals who are trained in infection control to visit homes than for untrained patients and families to visit hospitals. These provisions are cost effective and could stay beyond the pandemic.

In 2018, the global home healthcare market was reported to be growing at a compound annual growth rate of 8.8%, with Asia-Pacific expected to grow at 9% between 2016 and 2024 (Ganesh, 2018). The home healthcare market in India comprised only 2% of the national healthcare spend, which seems low in comparison to the 8.3% spent in the USA. However, the rate of growth was higher in India (Ganesh, 2018). In 2019, the home healthcare sector grew to 3.6% of the overall healthcare industry. Post-COVID-19, it is expected to grow at a CAGR of 18.91% between 2020 and 2025 (NetScribes, 2020). From a business perspective, this model of service delivery appears to be here to stay.

Benefits

Although telemedicine is purely virtual while home care is a service delivered in a patient's home, the benefits can be summarized together as, often, a combination of the two is the best option. Telemedicine can greatly increase the efficiency of clinicians, allowing them to answer follow-up queries through email or video chat (Agarwal et al, 2016b). This can allow in-person visits to be prioritised by nature and severity of the problem. Readmission rates in hospitals can be significantly reduced through home care services and efficient monitoring of critically ill patients.

The adoption of telemedicine and home healthcare will likely be higher in the older age group (60 years and above), and the young working population. By 2050, 20% of the Indian population will classify as part of the former group (Adhikari, 2017). Elderly individuals with severe functional or cognitive impairments often cannot be managed at home without specialist support. At this stage, hospitalisation becomes mandatory for palliative care as there is a lack of hospices or palliative care centres; the centres that are available often only accept cancer patients (Adhikari, 2017). Social isolation caused by increasing shifts towards nuclear family living and high levels of perceived stress increase demand for constant personal care at home among older people (Ugargol et al, 2016).

In the younger population, there is an increased incidence of chronic diseases, as well as lack of work-life balance and crumbling support systems which contribute to a growing demand for home care (Ganesh, 2018). We can estimate that evenings and weekends will be prime times for service delivery. The presence of this demand is proven by the fact that patients seeking services during non-office hours are keen to accept and pay extra for telemedicine and home healthcare services (Agarwal et al, 2016a). According to a survey by the Federation of Indian Chambers of Commerce and Industry (FICCI, 2019), 54% of patients preferred laboratory tests, medicine delivery and nursing care to be delivered at home.

Challenges

As with any service, the service providers need to be on board with the changes in service delivery, yet healthcare providers have historically been resistant to change. However, it has been reported that increases in remuneration for such services have contributed to more doctors being willing to shift to a home healthcare system. Young male doctors in particular have been identified as more willing to provide home healthcare services during non-office houses (Agarwal et al, 2016b). This can be possibly attributed to the familial responsibilities that many female doctors have during non-office hours, such as housework and caring for children.

The insurance system is also not currently set up to accommodate the provision of home healthcare or telemedicine. Outpatient care is not covered by insurance and there is no universal health

coverage, so these services are often paid for out of pocket (Shahrawat and Rao, 2012) . However, for patients covered by insurance, insurers do not reimburse for phone or email consultations, hence many doctors avoid email and telephone consultations (Agarwal et al, 2016b). These insurance policies need to change to an upfront coverage system that includes clinical care at the patient's home for this industry to successfully grow and for the consumers to afford best quality care. Other options for financing telemedicine or home care include a fee for service system, an annual subscription model (depending on health history and predicted comorbidities), family packages and preventive care test packages (Agarwal et al, 2016a). However, unless government-subsidized options become widely available, adoption of home healthcare and telemedicine will remain higher among those with higher incomes because of lack of universal coverage and insurance.

Changes to the healthcare infrastructure are also required for this shift to home healthcare to be efficient and effective. The majority of healthcare institutions use paper-based records for prescriptions, while hospitals generally use physical files and print prescriptions for patients. Rarely are patient records digitsed. Electronic medical records could improve the quality of care by ease of data access, reduction in medical errors and overall improvement in efficiency of service delivery (Edwards and Moczygemba, 2004). Until this infrastructure is updated, providing widely accessible and efficient telemedicine will likely be very difficult. Electronic medical records would also need to be further integrated into home care and telemedicine software (Agarwal et al, 2016b). The software created would then need to be adapted to the requirements of specific clinicians and customisable for patients with multiple conditions. A seamless continuum between hospital care, telemedicine and home care should be the goal. However, organisations face high upfront costs to set up electronic medical records and the required systems to provide such an effective continuum of care.

The market for home nurses, skilled home care staff, at-home health screening and monitoring can be expected to grow rapidly. Institutions training and regulating these skilled workers will likely see a rise in admissions. Currently, there are no stringent regulations in place for home-based care services. If this industry does grow at the predicted CAGR, there is a need for a regulatory body so that staff and patients can be protected. Regulating the industry will also lead to more individuals training in these skills, creating a new avenue of employment.

Conclusions

For a patient, a combination of telemedicine and home care is often more affordable, convenient and comforting than hospital care, especially during the current COVID-19 pandemic. This shift in consumer attitude has started and will most likely continue. It will initially be prevalent among individuals in higher socioeconomic strata, but home healthcare and telemedicine have the potential to create new

pool of skilled workers and become a sustainably scalable model. With innovative thinking and funding, there is immense potential to make this mode of healthcare delivery accessible to all layers of society. It cannot be disputed that India is one of the biggest healthcare markets in the world. It is time for healthcare providers to evolve and build sustainable models of service delivery. Organisations need to decide whether they want to be ahead of the curve or left to play catch-up.

Key Points

- Demand for telemedicine and home health care services in India will continue to see a rise post the Covid crisis with the main customers being the young working population and the elderly.
- Combination of telemedicine and home healthcare can significantly reduce healthcare expenditure while maximizing capacity of existing hospital based services.
- The next 5 years offer a lucrative opportunity for healthcare service providers to enter into or expand their business into the area of telemedicine and home health.
- This shift will lead to increased employment and upskilling opportunities in the health sector.

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